



# Antibiotic Use Procedure

Procedure Number  
WCDHB-PC-0007

Version Nos:  
7

## 1. Purpose

This Policy outlines the requirements for the prudent use of Antimicrobials within West Coast District Health Board (WCDHB) Facilities to ensure that Antimicrobials are used appropriately so that infections are treated effectively and the spread of Antimicrobial-resistant organisms is minimised.

## 2. Application

This Procedure is to be followed by all clinical staff employed by the WCDHB.

## 3. Definitions

For the purposes of this Procedure:

“*Antimicrobial*” is taken to mean an agent that kills micro-organisms or suppresses their multiplication or growth

“*Sensitivity*” is taken to mean an indication that the organisms should respond to antimicrobial concentrations achieved at the site of infection with usual dosage regimens

“*Intermediate/Moderate Susceptibility*” is taken to mean an indication that the organisms that do not respond to antimicrobials at usual doses, but may respond if higher doses are used. For example: enterococci may be considered sensitive to high doses of benzylpenicillin or amoxycillin, but will require combined therapy with an aminoglycoside for serious infections such as endocarditis

“*Resistant*” is taken to mean an indication that the organisms will not respond to an antimicrobial agent even with increased dosage regimens

## 4. Responsibilities

For the purposes of this Policy:

*Clinical Nurse Specialist -Infection Control* is required to:

- monitor the performance of staff members in relation to this Procedure

*Staff Members* are required to:

- ensure they abide by the requirements of this Procedure
- abide by all WCDHB Infection Control Policy and Procedures

## 5. Resources Required

This Procedure requires:

- i) WCDHB Antibiotic Guidelines



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## 6. Process

### 1.00 Introduction

- 1.01 The development of resistance by microorganisms to antibiotics and the spread of resistant organisms is a public health concern. WCDHB believes that the prudent use of antibiotics in conjunction with other infection control activities can prevent this and therefore prolong the usefulness of antibiotics.
- 1.02 Antibiotic treatment should only be prescribed to patients where they are clinically indicated. (See WCDHB Antibiotic Guidelines). Surgical antibiotic prophylaxis should be in line with Surgical Antibiotic Prophylaxis guidelines in WCDHB Antibiotic Guidelines.
- 1.03 Each antibiotic treatment should be reviewed regularly for efficacy.
- 1.04 Broad-spectrum empiric therapy should only be used where the causative organism has not been identified, in line with the recommendations for empiric therapy specified in WCDHB Antibiotic Guidelines. On identification of the causative organism and its associated sensitivities, treatment should be changed to a narrow spectrum antibiotic.

### 2.00 Antibiotic Treatment

- 2.01 Oral antibiotic treatments are preferably to be prescribed for 5 days (but where clinically indicated can be for a maximum of 7 days), and then reviewed. If the prescription has not been reviewed and annotated within this time frame, treatment will be discontinued.
- 2.02 IV antibiotic treatments are preferably to be prescribed for 24 hours only (but where clinically indicated can be for a maximum of up to 48 hours) and then changed to an oral treatment as soon as possible.
- 2.03 If the antibiotic treatment is to be given long term, the prescription is to be annotated with the expected length of course at the time of writing.
- 2.04 Antibiotic treatments that are reserved for use in a specific clinical situations (e.g. where a patient has an allergy or to overcome resistance) are only to be used in these situations.

### 3.00 Surgical Antimicrobial Prophylaxis

- 3.01 Parenteral Surgical Antimicrobial Prophylaxis should be administered for:
  - i. Procedures that entail entry into a microbial containing viscus (clean/contaminated procedure);
  - ii. Clean procedures with insertion of prosthetic materials;
  - iii. Some clean procedures where subsequent infection would have serious implications or patients are at high risk of subsequent infection.
- 3.02 All antibiotics for surgical prophylaxis MUST be charted with a stop date.
- 3.03 The prophylactic antibiotics should be administered no more than one hour, and at least 20 minutes before the time of incision.



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- 3.04 Many reports document affective prophylaxis with a single dose of the antibiotic. Prophylactic courses continued after wound closure should be restricted because of unproven benefit and the risk of the selection of resistant bacteria.
- 3.05 Guidance on the selection of appropriate Antimicrobial selection can be found in “Treatment Guidelines – Surgical Antibiotic Prophylaxis” section of the WCDHB Antibiotic Guidelines

### **4.00 Prescribing Antibiotics In Long-Stay Care Facilities**

- 4.01 Antimicrobials are only to be prescribed to patients/consumers in long-stay facilities by a medical practitioner where it is clinically indicated.
- 4.02 Narrow spectrum agents should be prescribed in preference to broad-spectrum agents.
- 4.03 Stop dates are to be charted for all Antimicrobial prescriptions (including ear/eye).
- 4.04 Swabs/specimens are to be obtained where possible prior to the commencement of any Antimicrobial agent. This is the responsibility of the prescribing medical practitioner.
- 4.05 Appropriateness of prescribing the Antimicrobial should be reviewed by the medical practitioner upon receipt of the laboratory results.
- 4.06 Asymptomatic Urinary Tract Infections are not to be treated with Antimicrobials except prior to lower limb joint replacement surgical procedures (e.g. hips or knees).

### **5.00 Monitoring**

- 5.01 Surveillance of Antimicrobial use and prevalence of microorganism resistance to Antimicrobial is to be undertaken as part of the WCDHB Infection Control Surveillance Programme. (see *WCDHB Infection Control Surveillance Procedure* and *WCDHB Infection Control Programme*).
- 5.02 The Clinical Nurse Specialist Infection Control will monitor the incidence of infection and the organisms involved throughout WCDHB.
- 5.03 The Pharmacy Department, Grey Hospital will provide the Clinical Nurse Specialist Infection Control with regular reports of Antimicrobial usage levels.
- 5.04 The Laboratory, Grey Hospital will provide the Clinical Nurse Specialist Infection Control with regular reports of infections and the organisms involved.
- 5.05 For each ward/unit, patient details and antibiotic prescribing and administration information will be collected on the WCDHB Antibiotic Prescribing Audit Form. This information will be collected for every patient receiving antibiotic therapy during the specified 24-hour period in which the audit is being carried out.
- 5.06 This Audit is to be conducted in each ward/unit on an annual schedule. The data will be collected by the Clinical Nurse Specialist Infection Control and nursing staff outside of the ward being audited.



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- 5.07 Data from the completed forms will be collated by the auditors and staff in the Pharmacy Department. They will prepare a report for each ward/unit indicating the percentage compliance for each aspect of the audit and giving a comparison against averages for the institution/area and for all DHB inpatient facilities.
- 5.08 Areas of non-compliance will be subject to further review to identify aspects requiring further education or alteration to the Antibiotic Prescribing Guidelines to meet current best practice.

### **6.00 Antimicrobial Sensitivity Pattern Reporting**

- 6.01 The Laboratory, Grey Hospital will provide annual reports of sensitivity patterns to the Clinical Nurse Specialist Infection Control and Pharmacy.
- 6.02 The Clinical Nurse Specialist Infection Control will publicize changes in sensitivity patterns to all clinicians, highlighting where resistance requires changes to prescribing patterns.
- 6.03 The sensitivity patterns are to be taken into consideration when the WCDHB Antibiotic Guidelines are reviewed.

## **7. Precautions And Considerations**

- ➔ Antimicrobial treatments should only be prescribed to patients where they are clinically indicated
- ➔ Antimicrobial treatment should be reviewed regularly for efficacy.
- ➔ Antimicrobial treatments that are reserved for use in a specific clinical situations (e.g. where a patient has an allergy or to overcome resistance) are not to be used except in those specific circumstances

## **8. References**

New Zealand Standard - Infection Control (NZS 8142:2008)

## **9. Related Documents**

WCDHB Antibiotic Guidelines

WCDHB Infection Control Surveillance Procedure

WCDHB Prescribing Procedure

<b>Revision History</b>	<b>Version:</b>	7
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